

That which is claimed is:

1. A transgenic, non-human mammal, wherein said mammal contains at least one FLP recombination target site in the genomic DNA thereof.
2. A transgenic, non-human mammal according to claim 1, wherein said FLP recombination target site is positioned within at least a portion of one or more gene(s) of interest.
3. A transgenic, non-human mammal according to claim 1, further comprising a nucleotide sequence encoding, and capable of expressing, in transgenic, non-human mammals, a FLP recombinase.
4. A transgenic, non-human mammal according to claim 1, further comprising FLP recombinase.
5. A transgenic, non-human mammal according to claim 1, wherein said mammal is a mouse.
6. A transgenic, non-human mammal according to claim 1, wherein said mammal is a rat.
7. A transgenic, non-human mammal according to claim 1, wherein said mammal is a monkey.
8. A transgenic, non-human mammal according to claim 1, wherein said mammal is a hamster.
9. A transgenic, non-human mammal according to claim 2, wherein said gene(s) of interest provide a readily analyzable marker feature to the host system.

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10. A transgenic, non-human mammal according to claim 9, wherein said marker is selected from the group consisting of β -galactosidase, thymidine kinase, tyrosinase, and antibiotic resistance.

Sub 23 11. A transgenic, non-human mammal according to claim 1, ~~wherein said~~
FLP recombination target site has the sequence:
~~5' - GAAGTTCCTATTCTCTAGAAAGTATAGGAACTT - 3',~~
~~or functional equivalents thereof.~~

12. A transgenic, non-human mammal according to claim 2, further comprising an additional DNA fragment, wherein said additional DNA fragment is selected from:

- (a) at least a second portion of said first gene of interest, or
- (b) at least a portion of a second gene of interest;

wherein said second DNA contains at least one FLP recombination target site; and wherein said second DNA, when combined in reading frame with said first DNA, provides a functional gene.

13. A transgenic, non-human mammal according to claim 2, further comprising an additional DNA fragment, wherein said additional DNA fragment is selected from:

- (a) at least a second portion of said first gene of interest, or
- (b) at least a portion of a second gene of interest;

wherein said second DNA contains at least one FLP recombination target site; and wherein site-specific recombination disrupts the function of said first gene of interest.

14. A transgenic, non-human mammal according to claim 13, wherein said function is colorimetrically detectable, immunologically detectable or genetically detectable.

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15. A transgenic, non-human mammal according to claim 3, wherein said mammal is selected from the group consisting of a mouse, a rat, a monkey and a hamster.

16. A transgenic, non-human mammal according to claim 4, wherein said mammal is selected from the group consisting of a mouse, a rat, a monkey and a hamster.

17. A transgenic, non-human mammal according to claim 9, wherein said mammal is selected from the group consisting of a mouse, a rat, a monkey and a hamster.

18. A transgenic, non-human mammal according to claim 12, wherein said mammal is selected from the group consisting of a mouse, a rat, a monkey and a hamster.

19. A transgenic, non-human mammal according to claim 13, wherein said mammal is selected from the group consisting of a mouse, a rat, a monkey and a hamster.

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